

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-92 (Canceled).

Claim 93 (Currently Amended): A process for the preparation of polyisobutylphenol-containing Mannich adducts, comprising:

a) alkylating a phenol with a highly reactive polyisobutene having a vinylidene double bond content of more than 70 mol%, a number average molecular weight of less than 900 from 300 to 850, and a polydispersity of less than 3.0 at below about 50°C, wherein the alkylating is carried out in the presence of an alkylation catalyst to form a reaction product;

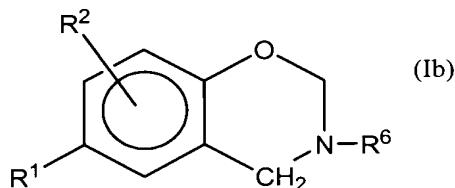
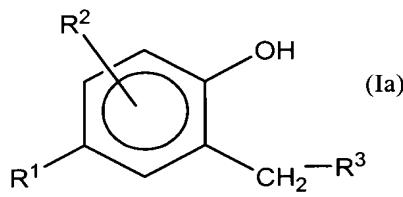
and

b) reacting the reaction product from a) with

b1) at least one aldehyde selected from the group consisting of formaldehyde, an oligomer of formaldehyde and a polymer of formaldehyde, and
b2) at least one amine ~~having at least one primary or at least one secondary amino function of the formula NHR⁴R⁵ where R⁴ and R⁵ are C₁- to C₂₀ alkyl radicals.~~

Claim 94 (Currently Amended): The process as claimed in claim 93, wherein the amine reacted with the reaction product is at least one selected from the group consisting of ~~3-(dimethylamino)-n-propylamine, di(3-dimethylamino)-n-propylamine, dimethylamine[[],]~~ and diethylamine and morpholine.

Claim 95 (Currently Amended): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct mixture comprising at least 40 mol% of at least one compound selected from the group consisting of formula (Ia) and (Ib),

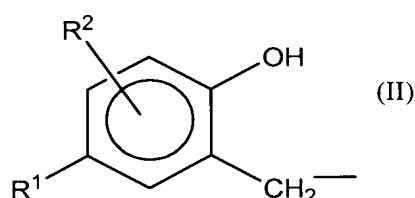


wherein

R¹ is a terminally bonded polyisobut enyl radical,

R² is H, C₁- to C₂₀-alkyl, C₁- to C₂₀-alkoxy, hydroxyl, a polyalkylenyl radical or CH₂NR⁴R⁵, where R⁴ and R⁵ have the meanings stated below, and

R³ is NR⁴R⁵, where R⁴ and R⁵, independently of one another, are selected from H, C₁- to C₂₀-alkyl, C₃- to C₈-cycloalkyl and C₄- to C₂₀-alkoxy radicals which may be interrupted and/or substituted by heteroatoms selected from N and O, and phenol radicals of the formula II



where R¹ and R² are as defined above;

with the proviso that R⁴ and R⁵ are not simultaneously H or phenol radicals of the formula II; or R⁴ and R⁵, together with the N atom to which they are bonded, form from a 5-, 6- or 7-membered cyclic structure which has one or two heteroatoms selected from the group consisting of N and O and may be substituted by one, two or three C₁- to C₆-alkyl radicals; and

R⁶ is a radical R⁴ or R⁵ other than H.

Claim 96 (Previously Presented): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct having a polydispersity of from 1.1 to 3.5.

Claim 97 (Previously Presented); The process as claimed in claim 96, further comprising:

fractionating the reaction mixture from b) by column chromatography over an acidic stationary phase by multistage elution with

- at least one hydrocarbon, and then
- at least one basic alcohol/water mixture.

Claim 98 (Previously Presented): The process as claimed in claim 97, wherein the basic alcohol/water mixture comprises:

- a) from 75-99.5% by weight of at least one C₂- to C₄-alcohol,
- b) from 0.4-24.4% by weight of water, and
- c) from 0.1-15% by weight of at least one amine which is volatile at room temperature.

Claim 99 (Previously Presented): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct mixture comprising up to 20 mol% of one or more polyisobut enyl phenols formed by the alkylating and which are not reacted in the reacting.

Claim 100 (Previously Presented): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct mixture comprising from 1-15 mol% of one or more polyisobut enyl phenols formed by the alkylating and which are not reacted in the reacting.

Claim 101 (Previously Presented): A Mannich adduct obtained by the process as claimed in claim 93.

Claim 102 (Previously Presented): A Mannich adduct obtained by the process as claimed in claim 95, wherein the Mannich adduct comprises at least 40 mol% of one or more compounds of formula Ia and Ib.

Claim 103 (Previously Presented): A fuel and/or lubricant composition comprising a detergent effective amount of the Mannich adduct claimed in claim 101.

Claim 104 (Previously Presented): An additive concentrate, comprising: one or more conventional additive components, and at least one Mannich adduct as claimed in claim 101 in an amount of from 0.1 to 99% by weight.

Claim 105 (Previously Presented): An additive concentrate, comprising: one or more conventional additive components, and at least one Mannich adduct claimed in claim 101 in an amount of from 0.5 to 80% by weight.

Claim 106 (Previously Presented): A fuel composition, comprising: a major amount of at least one liquid hydrocarbon fuel, and at least one adduct as claimed in claim 101 in a detergent active effective amount.

Claim 107 (Previously Presented): A lubricant composition, comprising: a major amount of at least one of a liquid lubricant, a semisolid lubricant and a solid lubricant, and at least one adduct as claimed in claim 101 in a detergent active effective amount.

Claim 108 (Previously Presented): A gasoline or diesel fuel, comprising:
the fuel composition claimed in claim 106.

Claim 109 (New): The process as claimed in claim 93, wherein R1 has a number average molecular weight of from 300 to 850.

Claim 110 (New): The process as claimed in claim 95, wherein R³ is NR⁴R⁵
wherein R⁴ and R⁵, independently of one another, are C₁- to C₂₀-alkyl radicals.